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Stormwater Services*



Stormwater 201 – Watershed Restoration and Planning

Presented to the Joint City-County Planning Committee

Sandra Wilbur, PE
September 11, 2008



Watershed Restoration Planning: How to achieve desired water quality?

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BMP Retrofits

Preservation

**Low Impact
Development**

**Stream
Restoration**

**Volume
Reduction**

**Maintenance
Practices**



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Watershed Restoration Planning

- Ellerbe Creek Watershed – 50% Complete
- Third Fork Creek Watershed – contract negotiation
- Little Lick Creek – Complete (UNRBA)
- Lick Creek – almost Complete (UNRBA)

In The Future

- Sandy Creek
- Northeast Creek
- Stirrup Iron Creek
- others





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Ellerbe Creek Watershed

Build on Local Watershed Plan Completed with the following contributors:

- Ecosystem Enhancement Program
- Upper Neuse River Basin Association
- City of Durham Stormwater Services
- Ellerbe Creek Watershed Association
- Durham Soil and Water Conservation
- Durham County
- Durham City County Planning
- Duke University
- Friends of South Ellerbe Creek
- Durham Central Park
- Other Groups and Stakeholders



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Ellerbe Creek Watershed Improvement Project Goals

Provide an Implementation Plan to Restore and protect the watershed functions of Ellerbe Creek

- Assess current stream and watershed conditions
- Identify and prioritize restoration projects
- Improve or prevent further deterioration of water quality conditions
- Public Involvement (October is next Public Meeting)

Scheduled to be completed in June 2009

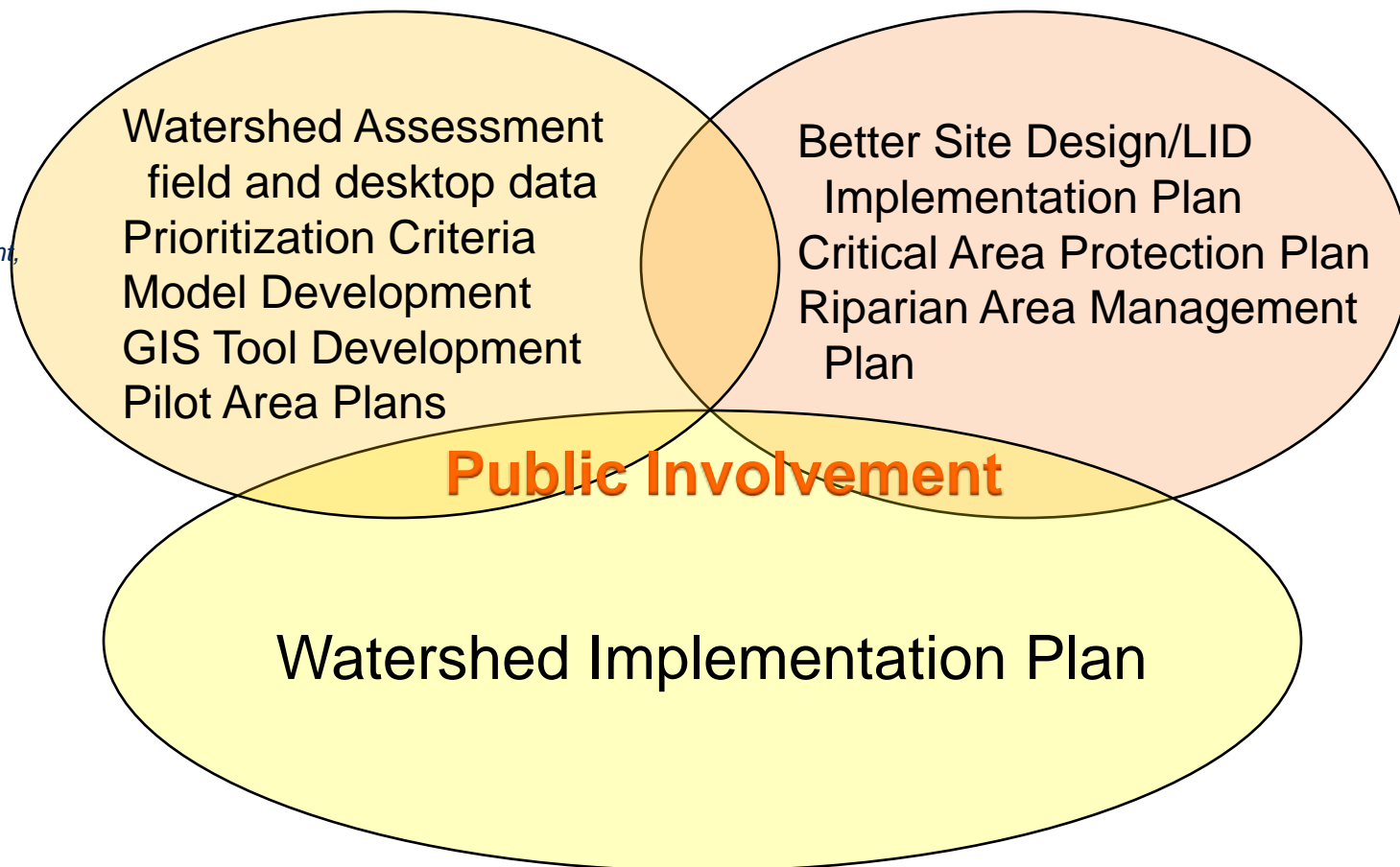


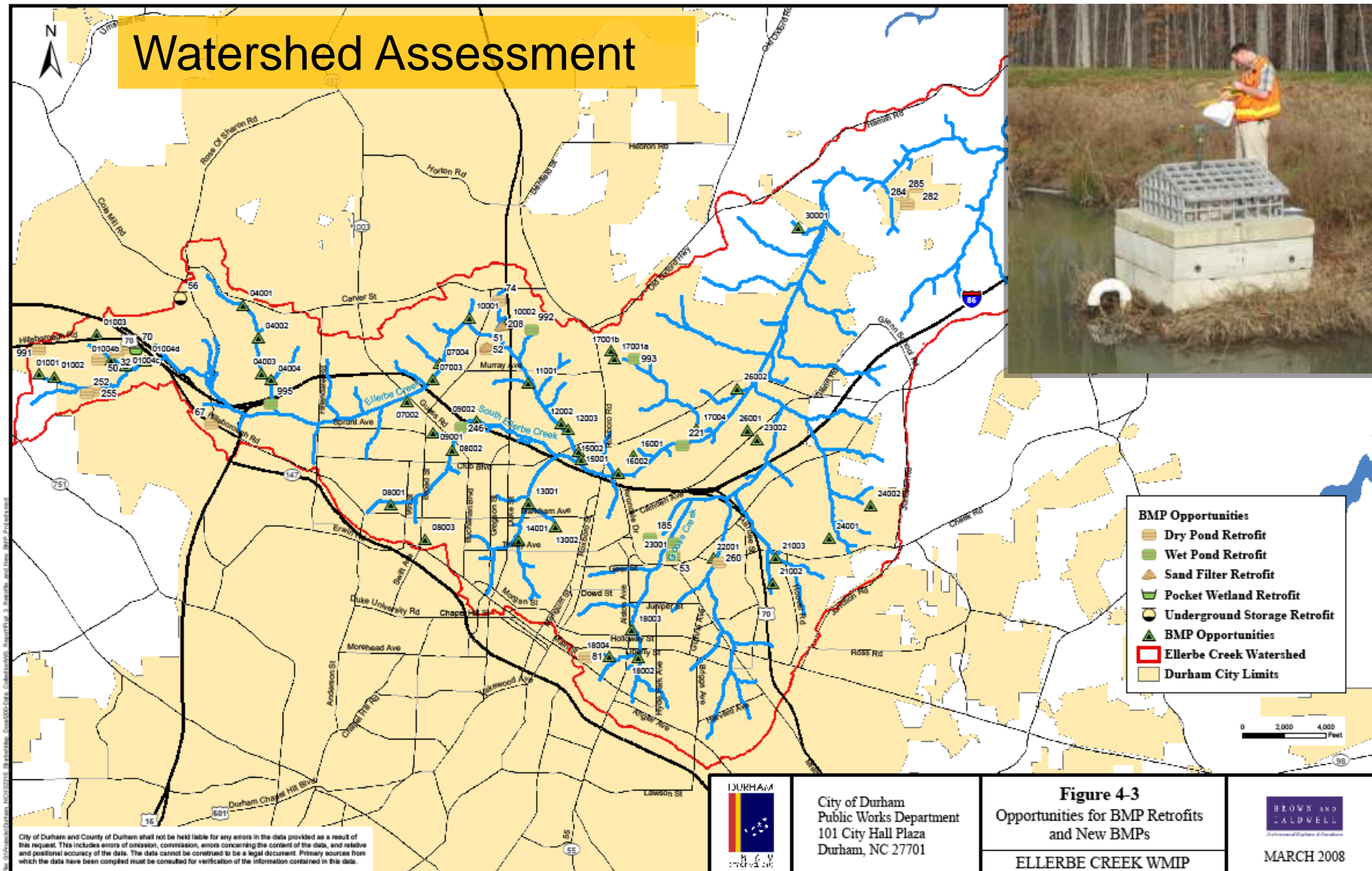
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Ellerbe Creek Watershed Improvement Project Highlights





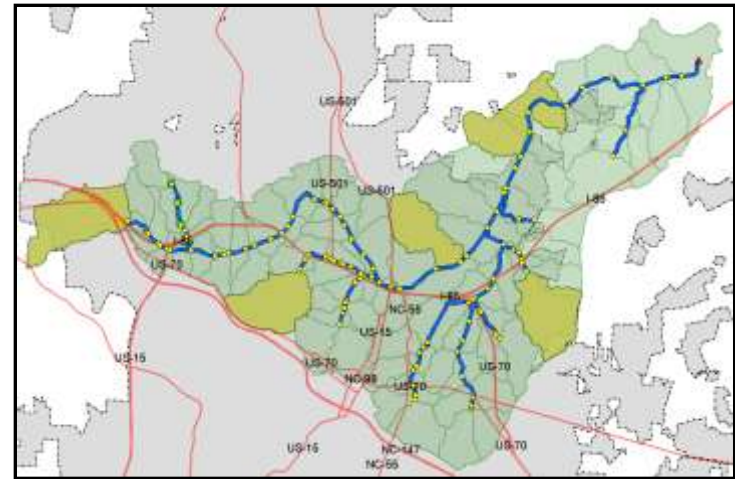
Ellerbe Creek Watershed Restoration Plan BMP Fieldwork

Good things are happening in Durham

www.durhamnc.gov



SWMM Modeling Schematic



Prioritization Criteria



Project Summary Sheets

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Watershed Planning Third Fork Creek



Good things are happening in Durham

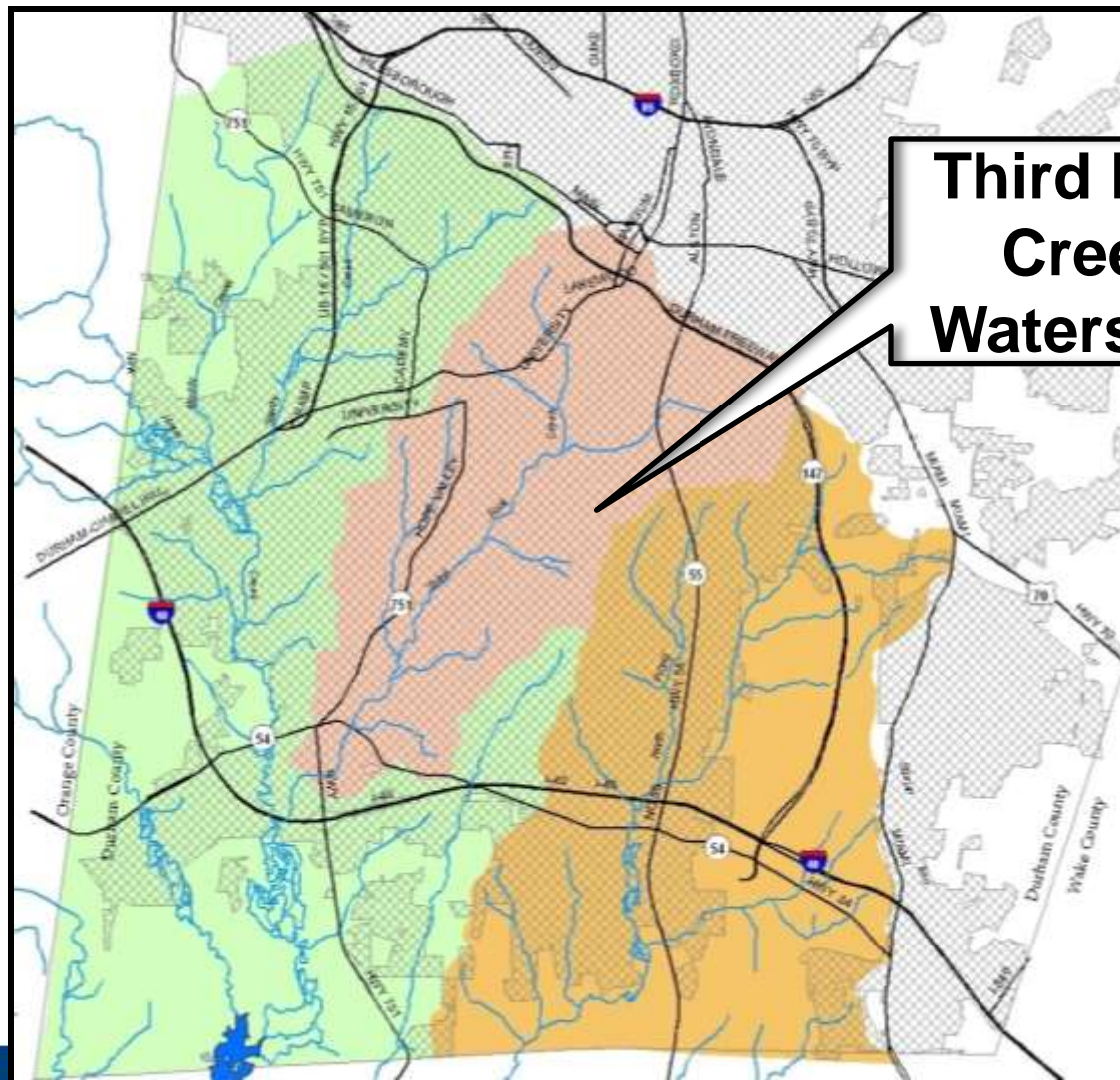


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Watershed Planning

Third Fork Creek



**Third Fork
Creek
Watershed**



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Watershed Planning Third Fork Creek

Watershed Characteristics

- 16.4 square mile watershed
- Tributary to New Hope Creek and Jordan Lake (Cape Fear)
- Includes downtown urban areas as well as industrial, commercial, and extensive residential areas
- On the State's 303(d) list of impaired waters for aquatic life support, and the lower portion of is listed for turbidity

Status of Watershed Planning Project

- In contract negotiations with Tetra Tech
- Project start scheduled for Oct 2008

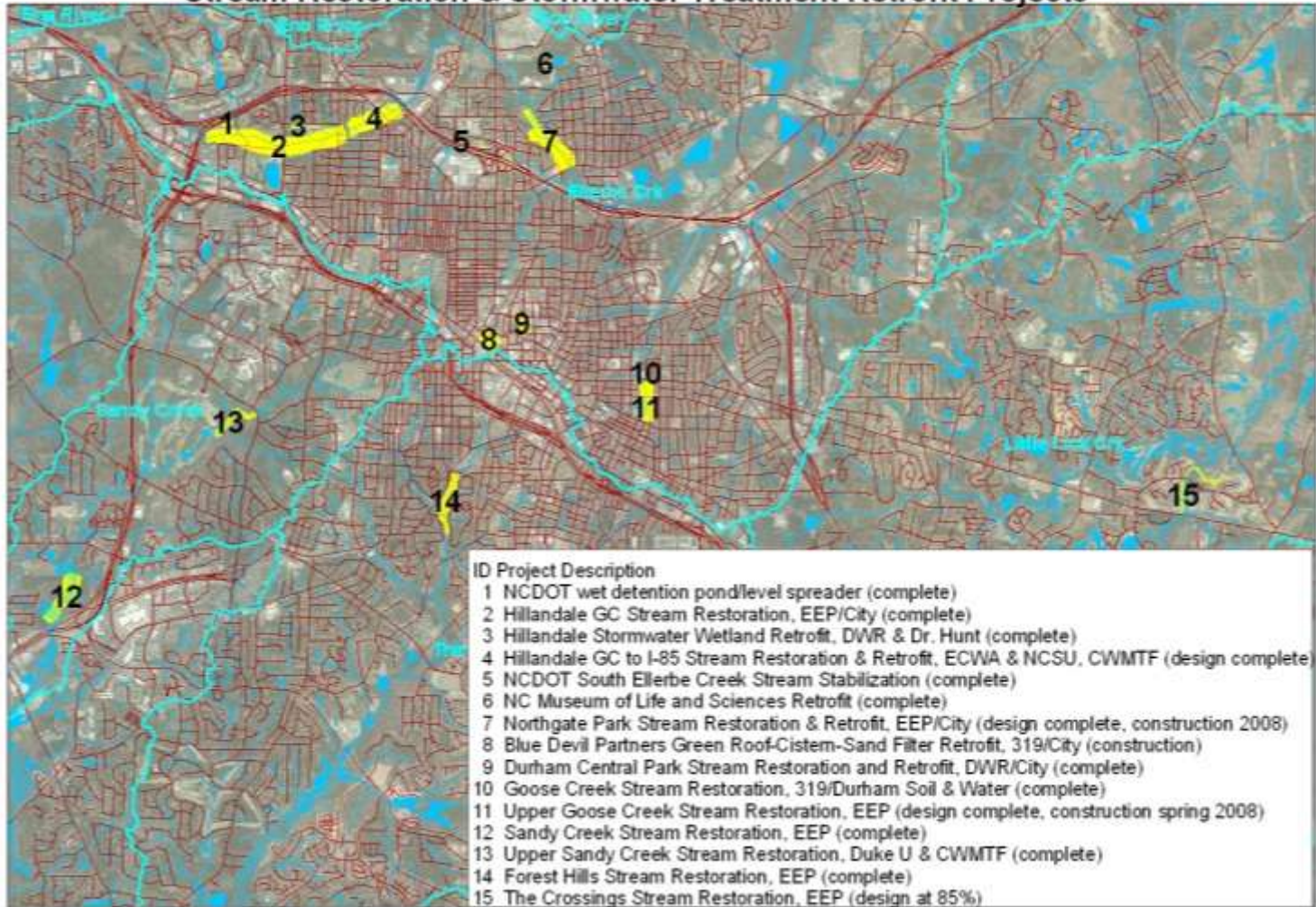


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Stream Restorations

Stream Restoration & Stormwater Treatment Retrofit Projects





Stream Restorations

The City works with other partners:

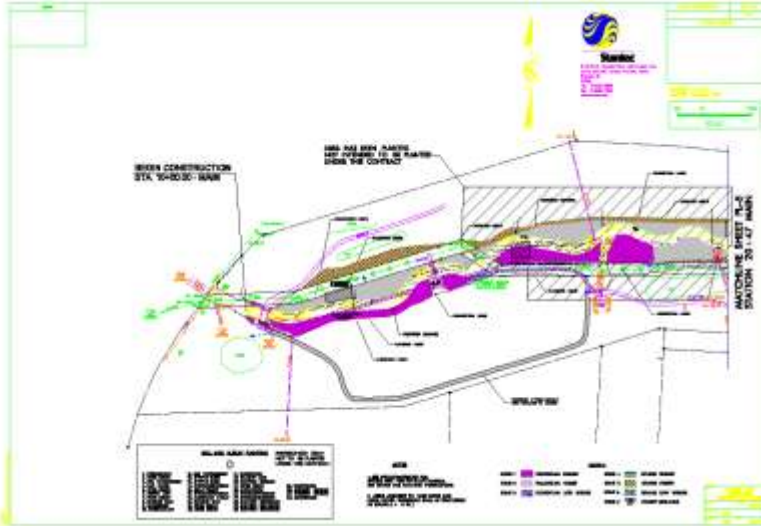
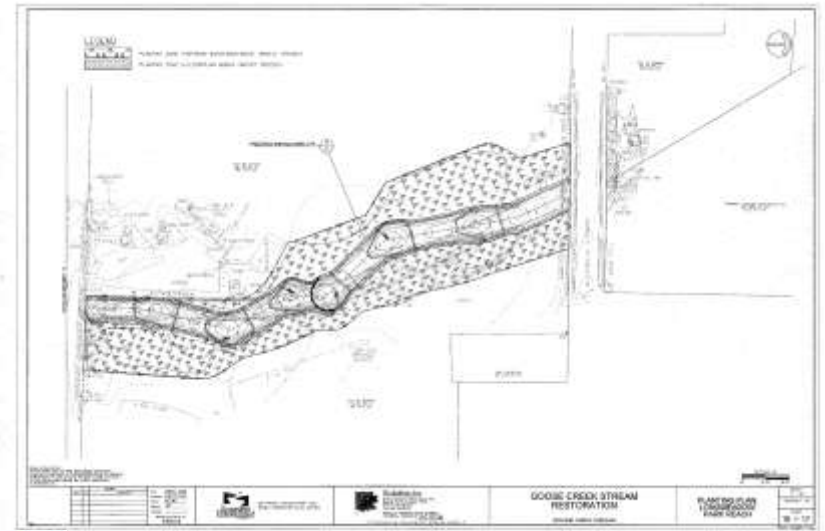
- Ecosystem Enhancement Program (EEP) Projects
- USACE Projects
- Ellerbe Creek Watershed Association
- Clean Water Management Trust Fund
- NC State
- Durham Soil and Water Conservation
- NC Division of Water Resources
- Durham Central Park
- Others

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Stream Restorations



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BEFORE



AFTER